

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

INTELLECTUAL VENTURES II LLC,

Plaintiff,

V.

SPRINT SPECTRUM L.P., NEXTEL
OPERATIONS, INC., ERICSSON INC.,
TELEFONAKTIEBOLAGET LM ERICSSON,
and ALCATEL-LUCENT USA INC.,

T-MOBILE USA, INC., T-MOBILE US, INC.,
ERICSSON INC., and
TELEFONAKTIEBOLAGET LM ERICSSON,

Defendants.

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Case No. 2:17-cv-662-JRG-RSP
LEAD CASE

JURY TRIAL DEMANDED

Case No. 2:17-cv-661-JRG-RSP

JURY TRIAL DEMANDED

T-MOBILE AND SPRINT'S MOTION FOR JUDGMENT ON THE PLEADINGS

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This Court determined that independent Claim 26 of the '330 Patent is directed to patent-ineligible subject matter. Dkt. 189 at 11. The remaining asserted independent claims of the '330 Patent and its parent—the '357 Patent—closely mirror patent-ineligible Claim 26. All recite no more than the patent-ineligible concept of sending and receiving information. The asserted dependent claims add trivial limitations or merely recite a technological environment, which cannot confer patent eligibility. T-Mobile and Sprint (the “Carrier Defendants”) move to dismiss the remaining asserted claims of the '330 and '357 Patents as patent ineligible.

I. BACKGROUND OF THE '330 AND '357 PATENTS

The '330 and '357 Patents describe a “conventional paging procedure” that uses two signals to convey the paging message. *Id.* at 2:5-13. The '330 Patent purports to be a continuation of the '357 Patent. The asserted claims of both patents recite concepts substantially identical to concepts described in the patents’ background section as conventional.

II. THE COURT FOUND THE '330 PATENT’S CLAIM 26 PATENT INELIGIBLE

The Carrier Defendants filed a motion to dismiss the '330 and '357 Patents as directed to patent-ineligible subject matter, relying on Claim 26 of the '330 Patent as representative of all asserted claims. Dkt. 26. The Court held Claim 26 invalid due to patent-ineligible subject matter. Dkt. 189 at 11. The Court found the motion’s representative claim analysis insufficient and did not address any other asserted claims. *Id.* at 18. This motion explains how each of the remaining asserted claims are patent-ineligible on a claim-by-claim basis.

III. THE REMAINING ASSERTED CLAIMS OF THE '330 PATENT ARE PATENT INELIGIBLE

A. *Alice* Step One: The Claims Are Directed to Abstract Ideas

i. Independent Claim 9 Is Directed to an Abstract Idea

Independent Claim 9 recites almost verbatim the same language as patent-ineligible

independent Claim 26. *See* Ex. A at 1 (comparing Claim 9 and Claim 26). Like Claim 26, Claim 9 recites the same two concepts that the Court held rendered Claim 26 abstract: (1) monitoring for a signal that indicates a page from a network device, where the signal includes an indication of a channel; and (2) receiving a transmission on the indicated channel. Dkt. 189 at 8.

The only distinction between the claims is that Claim 9 is directed to user equipment having a generic “processor” and “circuitry,” whereas Claim 26 is written as a method claim performed by the user equipment. This is a distinction without a difference. Courts have consistently held that implementing a method claim on generic computer equipment does not make a claim any less abstract. *See, e.g., Telinit Techs., LLC v. Alteva, Inc.*, No. 14-cv-00369, 2015 WL 5578604, at *16-17 (E.D. Tex. Sept. 21, 2015) (“generic ‘processor’ and generic ‘networks’” do not remove a claim from “the realm of an abstract idea”); *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2357-60 (2014) (invoking generic computer equipment does not render a claim patent eligible). Like those cases, Claim 9’s recitation of generic computer equipment—one with generic “processor” and “circuitry”—does not the claim’s abstractness.

ii. Independent Claims 1 and 18 Are Directed to an Abstract Idea

Independent Claims 1 and 18 recite similar concepts as ineligible Claim 26, except Claims 1 and 18 recite them from a network’s perspective instead of Claim 26’s user equipment perspective, and Claims 1 and 18 add a step of “receiv[ing], from a core network, a paging message related to a user equipment (UE).”¹ *See* Ex. A at 1 (comparing Claims 1, 18, and 26).

The step of “send[ing] . . . a signal to indicate a page” in Claims 1 and 18 corresponds to the step of “monitoring . . . for a signal to indicate a page” in Claim 26. The step of “send[ing] a transmission” in Claims 1 and 18 corresponds to the step of “receiving . . . a transmission” in

¹ Claims 1 and 18 are nearly identical. *Compare* Claim 18 (method performed by generic “network device”), *with* Claim 1 (generic “network device” performing same method).

Claim 26. Those steps of Claims 1 and 18 are directed to the same abstract idea as patent-ineligible Claim 26, except flipped to account for the network perspective of the claims: sending an indicator that includes instructions for receiving information. Dkt. 189 at 8.

The additional step in Claims 1 and 18 of “receiv[ing], from a core network, a paging message related to a user equipment (UE)” does not change the ineligibility result. This step is directed to the abstract idea of receiving information. Indeed, the Court’s Order for Claim 26 noted that “receiving data elements” falls under the Federal Circuit’s repeated holdings that “collecting and sending information is an abstract idea.” Dkt. 189 at 8; *see also Alice*, 134 S. Ct. at 2352 n.2 (holding abstract a claim that included receiving information over networks connecting an intermediary to another institution). That same logic applies here. And, limiting the type of data received to “a paging message related to a user equipment (UE)” or receiving the data “on a control channel” from “a core network” does not alter the basic fact that the step entails merely receiving data. *See* Dkt. 189 at 8 (“[L]imiting the type of data that the user equipment is monitoring or . . . limiting the receipt of the data to a certain channel . . . [is] insufficient to alter the basic fact that Claim 26 merely waits for and then receives data.”); *see also SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018) (“As many cases make clear, even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract”); *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329 (Fed. Cir. 2017) (holding claim directed to, in part, the abstract idea of “sending information,” even though claim recited sending specific types of information).

In sum, Claims 1 and 18 are directed to a combination of two abstract ideas: receiving information and sending an indicator that includes instructions for receiving information. *Elec.*

Power Grp., 830 F.3d at 1354 (“Here, the claims are clearly focused on the combination of those abstract-idea processes.”).²

iii. The Dependent Claims Are Directed to the Same Abstract Ideas as the Independent Claims

There are five groups of asserted dependent claims. Each claim within a group recites identical concepts and depends from one of the asserted independent claims (1, 9, 18, and 26). These groups all recite concepts that do not change the focus of the independent claims and do not remove the claims from reciting the same abstract ideas as the independent claims.

Group 1: Claims 2 and 19 recite that “the paging message includes one of an international mobile subscriber identity (IMSI) or temporary mobile subscriber identity (TMSI).” This limitation merely specifies the type of data in a message. But the Court already held that “limiting the type of data” is not enough at Step One. Dkt. 189 at 8; *SAP*, 898 F.3d at 1168 (limiting information to “particular content” is insufficient). This narrowing of information in “a paging message” does not alter the claims’ focus; these claims remain directed to the abstract idea of the independent claims. *BSG*, 2018 WL 3862646, at *4 n.1.

Group 2: Claims 3 and 20 recite that “the control channel is one of a shared control channel (SCCH) or a broadcast channel.” This only limits the claims to a certain channel. As the Court held, “limiting the receipt of the data to a certain channel” is insufficient at Step One. Dkt. 189 at 8; *SAP*, 898 F.3d at 1168 (limiting information to a “particular source” is insufficient). The Group 2 claims are directed to same abstract idea as the independent claims.

Group 3: Claims 7, 14, 24, and 31 recite that “the control channel is a channel for carrying uplink and downlink resource allocations.” Limiting these claims to certain channels

² The generic computer components in Claims 1 (“circuitry” and “processor”) and 18 (“network device,” “core network,” and “user equipment”) merely limit the claims to a technological environment and do not save the claims at Step One. *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016).

and a particular technological environment does not alter the abstractness of the claims.

Group 4: Claims 8, 17, 25, and 34 recite that “the signal is sent [or, for Claims 17 and 34, ‘received’] in a time interval derived from an international mobile subscriber identity (IMSI) associated with the UE.” That limitation is no different for Section 101 purposes than Claim 26’s recitation of “the signal is derived from a radio network temporary identifier,” which the Court held does not alter the abstractness of Claim 26 (Dkt. 189 at 8), as these claims merely limit when information is sent or received based on a known piece of information (IMSI). And, limiting the claim to sending a signal “in a time interval” does not remove the abstractness of the claim, because *all* signals are sent in some time interval. As such, this does not alter the basic fact that the claims’ focus is on simply sending a signal. And, functionally reciting that the time interval is “derived from” a known piece of information merely involves translating information from one form to another. *Digitech Image Techs., LLC v. Elecs. For Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (“[A] process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible.”). Thus, these claims are directed to the same abstract idea as the independent claims.

Group 5: Claims 10 and 27 recite that “the monitoring utilizes discontinuous reception and the UE monitors downlink transmissions in time intervals derived from an international mobile subscriber identity (IMSI) associated with the UE.” The first half of this language merely adds that the abstract monitoring step uses the conventional concept of “discontinuous reception.” ’330 Patent at 2:5-18 (explaining that a “mobile terminal uses Discontinuous Reception” in the “conventional paging procedure”). This limitation merely relates to when monitoring is performed and is “insufficient to alter the basic fact that [these claims] merely wait[] for . . . data.” Dkt. 189 at 8. And, “a claim is not patent eligible merely because it applies

an abstract idea in a narrow way.” *BSG*, 2018 WL 3862646, at *4. The latter portion of this claim language recites the same insufficient limitations as the Group 4 claims. These claims are directed to the same abstract idea as the independent claims.

B. *Alice* Step Two: The Claims Do Not Recite an Inventive Concept³

i. Independent Claim 9 Does Not Recite an Inventive Concept

Because the Court already has held that nearly all of Claim 9’s limitations do not supply an inventive concept for Claim 26, this motion only addresses the Claim 9 limitations that are not recited in Claim 26. Dkt. 189 at 8-11. The only additional elements of Claim 9 not recited in Claim 26—a “processor” and “circuitry”—are legally insufficient to supply an inventive concept. The “mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 134 S. Ct. at 2358; *see also SAP*, 898 F.3d at 1169 (“[T]his court has ruled many times that ‘such invocations of computers and networks that are not even arguably inventive are insufficient to pass the test of an inventive concept. . . .’”). Here, Claim 9 is a classic case of implementing an abstract idea on generic computer components. Claim 9 recites no details of the “processor” and “circuitry.” Claim 9 simply uses the “processor” and “circuitry” as conventional tools to implement the abstract idea. Under Supreme Court and Federal Circuit precedent, those components cannot supply an inventive concept whether they are considered individually or in combination.

ii. Independent Claims 1 and 18 Do Not Recite an Inventive Concept

Because the Court has already held that nearly all of the limitations in Claims 1 and 18 do

³ The Court’s *Markman* order that “the signal” carries “its plain and ordinary meaning” does not alter the Section 101 analysis because, as the Court noted, the claimed “signal is explicitly defined in the claims.” Dkt. 232 at 19-21. Because “the signal” has its plain and ordinary meaning and “is explicitly defined in the claims,” the Court’s construction cannot alter the ineligibility of the claim, particularly given that the same term was recited in ineligible Claim 26. *Id.*; *see also* Dkt. 189 at 7-11 (holding Claim 26, which also recited “the signal,” ineligible).

not supply an inventive concept for Claim 26 (albeit from a user perspective), the Carrier Defendants only address the limitations that are not recited in Claim 26. Dkt. 189 at 8-11.

Claims 1 and 18's added step of "receiving" a paging message from a core network does not supply an inventive concept. *First*, the patent admits that this concept is conventional. The admittedly "conventional" paging procedure sends a paging message from the core network: "The **core network** usually knows when the mobile terminal will be monitoring the first paging signal within DRX cycle. Thus, if **the network intends to page** a particular mobile terminal, it sends the first paging signal at the time when the mobile terminal will monitor the paging channel." '330 Patent at 2:22-26, 2:5-6. Because the core network is connected to the mobile terminal through a base station (i.e., a network device), the above description acknowledges that a network device must first receive a paging message from the core network as part of the conventional paging procedure. *See id.* at Fig. 1 (showing core network connected to base stations). *Second*, the basic computer function of "receiving" a message over a network is "not even arguably inventive." *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014). Limiting receipt of that message from a particular source (i.e., the core network) does not change that conclusion. *SAP*, 898 F.3d at 1168.

Claims 1 and 18 also recite generic computer components—"circuitry," "processor," and "core network"—that do not supply an inventive concept. As explained above for Claim 9, these types of limitations are legally insufficient at Step Two. Like Claim 9, the claims do not recite any details of the "circuitry," "processor," or "core network."⁴ Claims 1 and 18 merely use those generic components as tools to implement the abstract idea. This is not enough at Step Two.

The remaining limitations—"a control channel" and "a paging message"—also do not

⁴ The specification admits that the "core network" is used in the "conventional paging procedure," precluding its ability to contribute an inventive concept. '330 Patent at 2:22-24.

supply an inventive concept. Those limitations are a function of reciting the claim in the context of a wireless environment. *Elec. Power Grp.*, 830 F.3d at 1354 (holding that “limiting the claims to [a] particular technological environment” was insufficient at Step Two). Moreover, the ’330 Patent’s admittedly “conventional” paging procedure includes a paging channel (i.e., a “control channel”) and “a paging message.” ’330 Patent at 2:5-6 (referring to a “paging message”), 2:24-26 (referring to a “paging channel”). Those conventional concepts do not help IV at Step Two.

As with patent-ineligible Claim 26, the ordered combination of steps here does not supply an inventive concept. Dkt. 189 at 8-11. These claims recite the same conventional ordering of steps as Claim 26, mirrored from the network perspective. The added “receiving” step already is part of the conventional paging procedure, and Claims 1 and 18 recite the same conventional arrangement of generic components performing the same steps found ineligible in Claim 26.

iii. The Dependent Claims Do Not Recite an Inventive Concept

Defendants have established above in Section III.A.iii that the dependent claims are substantially similar and linked to the same abstract ideas as the independent claims. As such, the Court can treat the independent claims as representative of the dependent claims, such that the dependent claims fall with the independent claims. Out of caution, Defendants present a Step Two analysis showing that dependent claims do not contain any inventive concepts.

Group 1: Claims 2 and 19 recite that “the paging message includes one of an international mobile subscriber identity (IMSI) or temporary mobile subscriber identity (TMSI).” The patent admits that both the IMSI and TMSI are “*known in the 3G standard.*” ’330 Patent at 5:40-43. Adding an admittedly known, standardized piece of information to a conventional paging message cannot supply an inventive concept whether considered individually or in combination. *Cellular Commc’ns Equip. LLC v. AT&T Inc.*, No. 2:15-cv-00576-RWS-RSP, 2017 WL 298074, at *1 (E.D. Tex. June 27, 2017) (holding claim lacked an inventive concept where it merely

added information (missing power) to a conventional power headroom report).

Group 2: Claims 3 and 20 recite that “the control channel is one of a shared control channel (SCCH) or a broadcast channel.” In holding that Claim 26’s recitation of a “shared channel” did not supply an inventive concept individually or in combination, the Court stated that the ’330 Patent “does not . . . assert invention of ‘shared channels.’” Dkt. 189 at 11. Similarly, the ’330 Patent does not assert invention of a “shared control channel” or a “broadcast channel.” These channels are merely part of the technological environment in which the abstract idea is implemented. *In re TLI*, 823 F.3d at 614. And, invoking already-available channels, which are not plausibly asserted to be an advance, “amounts to a recitation of what is ‘well-understood, routine, [and] conventional.’” *SAP*, 2018 WL 3656048, at *7.

Group 3: Claims 7, 14, 24, and 31 recite that “the control channel is a channel for carrying uplink and downlink resource allocations.” Like the Group 2 claims, the Group 3 claims recite a type of channel. The patent does not assert invention of “a channel for carrying uplink and downlink resource allocations.” As with the Group 2 claims, Group 3 recites the technological environment in which the abstract idea is implemented and invokes the use of already-available channels. This, again, does satisfy Step Two individually or in combination.

Group 4: Claims 8, 17, 25, and 34 recite that “the signal is sent [or, for Claims 17 and 34, ‘received’] in a time interval derived from an international mobile subscriber identity (IMSI) associated with the UE.” The first part of these claims—relating to sending a signal in a time interval—is the type of basic computer function that is not even arguably inventive. *buySAFE*, 765 F.3d at 1355. Indeed, all signals are sent in some time interval. The second part of these claims—that the time interval is “derived from” an IMSI—is purely functional claim language that does not explain *how* the derivation is performed. The Court already held similar

limitations—that a signal is “derived from” an RNTI—as not supplying an inventive concept. Dkt. 189 at 10-11. The Federal Circuit also has held that deriving one type of information (e.g., a time interval) from another (e.g., IMSI) is not inventive at Step Two. *Digitech Image Techs., LLC v. Elecs. For Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014). This is particularly true when both types of information are well-known such that the patent cannot reasonably claim to have invented either type of information. *Elec Power Grp.*, 830 F.3d at 1355. Accordingly, these claims do not supply an inventive concept individually or in combination.

Group 5: Claims 10 and 27 recite that “the monitoring utilizes discontinuous reception and the UE monitors downlink transmissions in time intervals derived from an international mobile subscriber identity (IMSI) associated with the UE.” Utilizing discontinuous reception cannot supply an inventive concept individually or in combination, because that limitation admittedly is conventional. ’330 Patent at 2:14-18. The remaining limitations are identical to the limitations in Group 4 and do not supply an inventive concept for the same reasons.

IV. THE ASSERTED CLAIMS OF THE ’357 PATENT ARE PATENT INELIGIBLE

A. Alice Step One: The Claims Are Directed to Abstract Ideas⁵

i. Independent Claim 47 Is Directed to an Abstract Idea

Exhibit A shows a side-by-side comparison of Claim 47 of the ’357 Patent and patent ineligible Claim 26 of the ’330 Patent. Ex. A at 2. The minor word differences between Claim 47 and Claim 26 of the ’330 Patent do not evade the Court’s abstractness finding for Claim 26. First, Claim 47 recites “receiving” a message to indicate a page, whereas Claim 26 recites

⁵ The Court’s *Markman* order holds that “the message having” phrase modifies both (1) “an allocation of resources for a shared channel” and (2) “a radio network temporary identity (RNTI) associated with a plurality of UEs including the UE.” This does not alter the Section 101 analysis. As the Court noted, “having” connotes “content” of the message. Dkt. 232 at 16-19. Limiting the type of information in a message does not alter the eligibility analysis, as the Court has held. Dkt. 189 at 8 (finding with respect to Claim 26 that including analogous limitations (“an indication of a shared channel” and “RNTI”) in a message did not save the claim).

“monitoring” for that same message. But “receiving” is a basic computer function that is not even arguably inventive and does not alter the abstractness of the claim. At most, this difference merely changes the first words of the abstract idea from “monitoring for” to “receiving.”

Second, Claim 47 recites a message having “an allocation of resources of a shared channel,” whereas Claim 26 recites a message having “an indication of a shared channel.” The Court already held that “an indication of a shared channel” does not render the claim non-abstract. Dkt. 189 at 8. Changing “an indication” to “an allocation of resources” still results in a limitation that merely supplies generic information in a message. *Elec Power Grp.*, 830 F.3d at 1353 (“[W]e have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.”).

Third, Claim 47 recites that the message has an “RNTI,” whereas Claim 26 recites that “the signal is derived from the RNTI.” The Court already found that the Claim 26 language did not save the claim from abstractness, and the Claim 47 language does not contain any language that would result in a different outcome. Dkt. 189 at 8. Fourth, Claim 47 recites receiving “a paging message,” whereas Claim 26 recites receiving “a transmission.” Specifying that the transmission is a paging message merely limits the type of data received, which the Court held does not render Claim 26 non-abstract. Dkt. 189 at 8.

The additions to Claim 47 also do not save the claim. First, Claim 47’s recitation that the UE is in “idle mode” merely supplies a conventional technological environment in which the abstract idea is implemented. *In re TLI*, 823 F.3d at 613; ’357 Patent at 2:21-25 (describing a UE in “idle” mode as part of the conventional paging procedure). Second, Claim 47 adds that the paging message includes an IMSI or TMSI. As noted above for the Group 1 dependent claims in the ’330 Patent, however, such a limitation does not render the claim non-abstract.

Third, Claim 47 adds “a control channel.” This merely limits the claim to a certain channel, which the Court held as insufficient at Step One. Dkt. 189 at 8; *see also supra*, at 4-5.

ii. Independent Claims 11 and 30 Are Directed to Abstract Ideas

Claim 30 recites the same concepts as Claim 47 and patent-ineligible Claim 26 of the ’330 Patent, except from the network perspective. For instance, the steps where the UE is “receiving” information in Claim 47 are now recited as a generic network device “paging” and “sending” information to the UE. This difference in perspective makes no difference for purposes of Section 101. As a result, for the same reasons explained above for Claim 47 and patent-ineligible Claim 26 of the ’330 Patent, Claim 30 is directed to an abstract idea of sending an indicator that includes instructions for receiving information. Dkt. 189 at 8.

Claim 11 also is a network-side claim that recites the same concepts as Claim 30 and adds an initial step of “sending, by a first network device, a paging signal to a second network device.” This additional step mirrors the first step of Claims 1 and 18 of the ’330 Patent, except that the step is “sending” the paging signal from one network device to another instead of the network device “receiving” the paging signal from the core network. Claim 11’s additional step is itself abstract and does not save Claim 11 for the reasons noted above with respect to Claims 1 and 18 of the ’330 Patent. As such, Claim 11 is directed to the abstract idea of sending information and sending an indicator that includes instructions for receiving information.

iii. The Dependent Claims Are Directed to the Same Abstract Ideas as the Independent Claims

Group 1: Claims 12, 31, and 48 recite, depending on the claim’s perspective, “receiving [or ‘sending’], by the second network device, a response to the paging message on an uplink shared channel.” This merely recites receiving or sending information on a certain channel, which is “not even arguably inventive.” *buySAFE*, 765 F.3d at 1355. The Court already held

that limiting the receipt of data to a certain channel (here, “an uplink shared channel”) does not save claims at Step One. Dkt. 189 at 8.

Group 2: Claims 13, 32, and 49 recite that the “control channel is a shared control channel (SCCH).” Group 2 of the ’330 Patent includes these same limitations. For the reasons noted above for Group 2 of the ’330 Patent, these claims remain abstract.

Group 3: Claims 14, 33, and 50 each depend from one of the Group 2 claims and recite that the SCCH [shared control channel] is “cell-specific.” The Group 3 claims merely limit the claims to using a particular channel: one that is cell-specific. But this only supplies a technological environment for the abstract idea. *In re TLI*, 823 F.3d at 613. And, the Court already held that limiting receipt of data to a certain channel (here, a cell-specific, shared control channel) does not alter the abstractness of a claim. Dkt. 189 at 8. These claims remain abstract.

Group 4: Claims 19, 38, and 54 recite, depending on the perspective, “receiving [or, ‘sending’], by the second network device, an uplink synchronization request from the UE for synchronizing communications between the second network device and the UE.” The focus of these claim limitations is receiving (or sending) information over a network. But, sending and receiving information over a network is itself abstract and “not even arguably inventive.” *buySAFE*, 765 F.3d at 1355. This step does not alter the abstractness of the independent claims.

B. *Alice* Step Two: The Claims Do Not Recite an Inventive Concept

i. Independent Claim 47 Does Not Recite an Inventive Concept

As explained above, Claim 47 mirrors patent-ineligible Claim 26 of the ’330 Patent. The same concepts recited in Claim 47 thus cannot supply an inventive concept, because the Court already held those concepts insufficient for Claim 26. Dkt. 189 at 8-11.

The additions to Claim 47 also do not supply an inventive concept, whether considered individually or as an ordered combination. The first addition—that the UE is in “idle mode”—is

admittedly part of the “conventional” paging procedure. ’357 Patent at 2:21-27. The second addition—that the paging message includes an IMSI or TMSI—also is admitted as standardized and known. *Id.* at 5:29-31. The third addition—use of a control channel—does not supply an inventive concept for the reasons noted above for Claims 1 and 18 of the ’330 Patent. These elements do no more as part of the ordered combination than they do individually. *Supra*, at 8.

ii. Independent Claims 11 and 30 Do Not Recite an Inventive Concept

Claim 30 mirrors Claim 47 and patent-ineligible Claim 26, except from the network perspective. This difference in perspectives does not make a difference at Step Two. *Alice*, 134 S. Ct. at 2360 (“The Court has long warn[ed] . . . against’ interpreting § 101 in ways that make patent eligibility depend simply on the draftsman’s art.”) (internal quotations omitted).

Claim 11 recites the same concepts as Claim 30, but adds an initial “sending” step. This additional step mirrors the initial step in Claims 1 and 18 of the ’330 Patent. Claim 11 lacks an inventive concept for the same reasons as Claim 30, and Claims 1 and 18 of the ’330 Patent.

iii. The Dependent Claims Do Not Recite an Inventive Concept

Group 1: Claims 12, 31, and 48 recite, depending on the claim’s perspective, “receiving [or ‘sending’], by the second network device, a response to the paging message on an uplink shared channel.” These elements do not supply an inventive concept individually or in combination. The ’357 Patent admits that a base station receives a response to a paging message as part of the “conventional” paging procedure, precluding those elements from supplying an inventive concept. ’357 Patent at 2:23-29 (“*In response to the paging message*, the mobile may establish a connection with the RAN . . . or update the mobile terminal location using a cell update procedure . . . *Upon receipt of the paging response*, the RAN [of base stations] knows the location of the mobile terminal.”); 2:32-36 (“In the *conventional* system, the connection establishment and cell update *response to a paging message* . . .”); 1:18-19 (referring to a RAN

“of base stations”). Limiting receipt of the paging response to “an uplink shared channel” does not help at Step Two. As the Court held for the same disclosures in the ’330 Patent, the patents “do not . . . assert invention of ‘shared channels.’” Dkt. 189 at 10-11. And, reciting “an uplink shared channel” only limits the step to a wireless environment. *In re TLI*, 823 F.3d at 614.

Group 2: Claims 13, 32, and 49 recite that the “control channel is a shared control channel (SCCH).” Group 2 of the ’330 Patent includes these same limitations. For the reasons noted above for Group 2 of the ’330 Patent, these claims do not supply an inventive concept.

Group 3: Claims 14, 33, and 50 recite that the shared control channel of the Group 2 claims is “cell-specific.” These claims merely recite that the claim is limited to a certain channel: a cell-specific, shared control channel. This is not enough at Step Two. First, as the Court already held, the patents do not assert invention of shared channels. Dkt. 189 at 10-11; *see also supra*, at 13. Second, reciting that the shared channel is “cell-specific” merely limits the claim to a technological environment. *In re TLI*, 823 F.3d at 614.

Group 4: Claims 19, 38, and 54 recite, depending on the perspective, “receiving [or, ‘sending’], by the second network device, an uplink synchronization request from the UE for synchronizing communications between the second network device and the UE.” These claims lack an inventive concept. Sending and receiving information over a network, as recited in these claims, is “not even arguably inventive.” *buySAFE*, 765 F.3d at 1355. Limiting the claim to sending particular data—“an uplink synchronization request . . . for synchronizing communications”—does not supply an inventive concept. *SAP*, 898 F.3d at 1168. The patent does not assert invention of this data. *Elec. Power Grp.*, 830 F.3d at 1355.

V. CONCLUSION

The challenged claims are patent-ineligible. The Carrier Defendants respectfully request that the Court grant this motion.

Dated: November 30, 2018

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CERTIFICATE OF SERVICE

I hereby certify that all counsel of record who are deemed to have consented to electronic service are being served with a copy of the foregoing document via the Court's CM/ECF system per Local Rule CV-5(a)(3) on November 30, 2018.

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